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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/832,586	04/11/2001	Robert D. Johnson	1023.1122101	1496

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EXAMINER

LEE, SEUNG H

ART UNIT

PAPER NUMBER

2876

DATE MAILED: 11/19/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/832,586

Applicant(s)

JOHNSON, ROBERT D.

Examiner

Seung H Lee

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-53 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-53 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 5, 6.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Specification

1. The disclosure is objected to because of the following informalities:

Page 1, lines 4, 6, and 8: "Application Serial No. _____" are not acceptable.

Appropriate correction is required.
2. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
4. Claim 27 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Re claim 27, line 1: The phrase "the inner diameter of the lumen" lacks proper antecedent basis.

Appropriate clarification and correction is required.

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Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1-30, 33-43, 47-49 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ortyn et al. (US 5,677,762, cited by applicant)(hereinafter referred to as 'Ortyn') in view of Omata (US 5,218,660).

Ortyn teaches an illumination device comprising a light source (22) generating radiation and a light pipe (40) for spatially homogenizing a variation of radiation wherein the light pipe is disposed between the light source (22) and biological specimens or sample (300), the light pipe having a proximal end or input aperture (42), a distal end or out aperture (41), and a length of the light pipe therebetween, the light pipe is solid glass, a lamp correction circuit for analyzing signals from the sample, lens (59) for collimating image of output aperture (41), the device also having a bandpass filter (28)

However, Ortyn fails to teach or fairly suggest that the light pipe is angularly homogenizing of radiation.

Omata teaches a polygonal light pipe (5) for homogenizing angularly using a triangular pole glass block in which serves as a glass diffuser (e.g., a triangle prism) wherein the light pipe is bending (e.g., S-shaped in Fig. 5), and the light pipe is coated with reflective material, the light pipe having a polygonal cross sectional shape or area (51-55), channeling means for emitting radiation using a light pipe assembly (5) (i.e.,

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mirror) and imaging lens or optic lens (7), and the fiber optic wire can be used in the illumination system (see Figs. 1-11; col. 1, line 57- col. 2, line 4; col. 3, line 66- col. col. 6, line 56).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teachings of Omata to the teachings of Ortyn in order to provide an improved and an enhanced means for reducing the size of the spectroscope by bending light path angularly. Moreover, such modification would reduce a noise ration using the fiber optic wire since the fiber optic wire is well known in the art to reduce the noise. Although, Ortyn as modified by Omata fairly suggest that a filament spatial and angular distribution, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of Ortyn as modified by Omata in order to adjust the spatial and angular distribution of radiation, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233, and therefore an obvious expedient.

7. Claims 31, 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ortyn as modified by Omata as discussed above, and further in view of Lu et al. (US 6,058,352)(hereinafter referred to as 'Lu').

The teachings of Ortyn/Omata have been discussed above.

Although, Ortyn/Omata teach the illumination device for analyzing of sample, they fail to teach or fairly suggest that the light source is a tungsten-halogen lamp.

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However, Lu teaches a spectrometer having a tungsten halogen lamp (510) to produce a visible light (see Fig. 4; col. 9, lines 4-18).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teachings of Lu to the teachings of Ortyn/Omata in order to provide a user-friendly system since operator(s)/user(s) can aim/adjust the spectrometer with the visible light of tungsten halogen lamp for focusing accurately on the sample or confirming the successful reading of the sample, and therefore an obvious expedient.

8. Claims 44-46 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ortyn as modified by Omata as discussed above, and further in view of Jina et al. (US 5,526,120)(hereinafter referred to as 'Jina').

The teachings of Ortyn/Omata have been discussed above.

Although, Ortyn/Omata teach the illumination device for analyzing of biological sample, they fairly suggest that the biological sample is a human appendage such as glucose or alcohol.

However, Jina teaches the analyte of human appendage such as glucose and alcohol of human blood (see col. 5, lines 28-35).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teachings of Jina to the teachings of Ortyn/Omata in order to analyze the biological sample of human such as glucose and/or alcohol, and therefore an obvious expedient.

9. Claims 50-52 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ortyn as modified by Omata as discussed above, and further in view of Roach (US 4,319,830).

The teachings of Ortyn/Omata have been discussed above.

Although, Ortyn/Omata teach the illumination device for analyzing of biological sample, they fairly suggest that the measurement system for measuring multiple wavelengths.

However, Roach teaches a multiple wavelength measurement system using a plurality of detectors (19-21) (see Figs. 1-6; col. 3, line 10-col. 4, line 68).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teachings of Roach to the teachings of Ortyn/Omata in order to provide an improved and an enhanced measurement system means for detecting the multiple wavelength of the sample using the multiple detectors, and therefore an obvious expedient.

10. Claims 53 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ortyn as modified by Omata and Roach, and further in view of Fuller et al. (US 5,792,668)(hereinafter referred to as 'Fuller').

The teachings of Ortyn/Omata/Roach have been discussed above.

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Although, Ortyn/Omata/Roach teach the illumination device for analyzing of biological sample, they fairly suggest that the analyte is glucose and prediction error of clinical significance is 10 mg/gl.

However, Fuller teaches that resolution of glucose is 10 mg/dl for measuring glucose (see col. 2, lines 10-26).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teachings of Fuller to the teachings of Ortyn/Omata in order to measure the glucose effectively and confidently, and therefore an obvious expedient.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure;

Endo [US 5,051,901], Negahdaripour et al. [US 6,236,459] disclose a measuring device and using of the same.

4,897,534] disclose an integrated circuit and a method for producing the same.

Any inquiry concerning this communication or earlier communication from the examiner should be directed to Seung H. Lee whose telephone number is (703) 308-5894. The examiner can normally be reached on Monday to Friday from 7:30 AM to 4:00 PM.

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If attempt to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael G. Lee, can be reached on (703) 305-3503. The fax-phone number for this group is (703) 308-5841 or (703) 308-7722.

Communications via Internet e-mail regarding this application, other than those under 35 U.S.C. 132 or which otherwise require a signature, may be used by the applicant and should be addressed to [michael.lee@uspto.gov].

All Internet e-mail communications will be made of record in the application file. PTO employees do not engage in Internet communications where there exists a possibility that sensitive information could be identified or exchanged unless the record includes a properly signed express waiver of the confidentiality requirements of 35 U.S.C. 122. This is more clearly set forth in the Interim Internet Usage Policy published in the Official Gazette of the Patent and Trademark on February 25, 1997 at 1195 OG 89.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-0956.

Seung H. Lee
Art Unit 2876
November 14, 2002



MICHAEL G. LEE
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